

Mr. Scott M. Darling
ALCOA, Inc. - Warrick Operations
P.O. Box 10
Newburgh, Indiana 47629-0010

Re: 173-11414
Modification to Operation Permits
OP 87-07-91-0113

Dear Mr. Darling:

ALCOA, Inc. - Warrick Operations was issued an operation permit on July 11, 1990 for the #5 horizontal direct chill casting (HDC) complex. ALCOA, Inc. - Warrick Operations requested an alternate opacity limit for the East and West Holding Furnaces on October 5, 1998. The alternate opacity limit established for the source shall be incorporated, by amendment, into the operating permit for the source. The Operating Permit No. OP87-07-91-0113 has been modified by replacing the existing opacity condition with the new alternate opacity limit language as follows:

6. ~~That pursuant to 326 IAC 5-1-2(a)(1) visible emissions (VE) from the stacks of any of the listed facilities shall be limited to 40% opacity on a 6-minute average basis as determined by VE readings taken in accordance with 326 IAC 5-1-4.~~

Pursuant to 326 IAC 5-1-5(b):

#5 Complex (HDC)

The alternate opacity limit (AOL) applies to the exhaust stacks from the East and West Holding furnaces. This AOL shall take the following form:

During fluxing only: Three (3) six (6)-minute average opacity readings not to exceed 80% opacity, one (1) six (6)-minute average opacity reading not to exceed 75% opacity, one (1) six (6)-minute average opacity reading not to exceed 65% opacity, and one (1) six (6)-minute opacity reading not to exceed 55% opacity. At other periods of the cycle, the opacity should be limited to 40% pursuant to 326 IAC 5-1-2(1).

Pursuant to 326 IAC 5-1-5(b)(3), this modification will become effective when this modification has been approved by the U.S. EPA as a revision to the State Implementation Plan.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Kimberly Titzer, at (800) 451-6027, press 0 and ask for extension (3-8396), or dial (317) 233-8396.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

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cc: File - Warrick County
U.S. EPA, Region V
Warrick County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Dick Sekula
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner
Title V Permit File - T173-6627-00007
Rules Section - Pat Troth

Indiana Department of Environmental Management

Office of Air Management

Summary of public comment period

Source Name: ALCOA, Inc.
Source Location: Junction State Roads 66 and 61, Newburgh, Indiana 47630
County: Warrick
SIC Code: 3334, 3352
Operating Permit Modification: 173-11414-00007
Operation Permit No.: 87-07-91-0113
Permit Reviewer: Kimberly Titzer

On November 11, 1999, the Office of Air Management (OAM) had a notice published in the Boonville Standard, Boonville, Indiana, stating that ALCOA, Inc. shall be granted a permit modification to the operating permit for the source. The notice also stated that OAM provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 15, 1999, ALCOA, Inc. submitted comments on the proposed permit modification. The summary of the comments is as follows:

Comment 1: There is missing language about the AOLs applying only during the flux cycle.

Response 1: The following change has been made to the permit to include language for only during the fluxing cycle as follows:

#5 Complex (HDC)

The alternate opacity limit (AOL) applies to the exhaust stacks from the East and West Holding furnaces. This AOL shall take the following form:

During fluxing only: Three (3) six (6)-minute average opacity readings not to exceed 80% opacity, one (1) six (6)-minute average opacity reading not to exceed 75% opacity, one (1) six (6)-minute average opacity reading not to exceed 65% opacity, and one (1) six (6)-minute opacity reading not to exceed 55% opacity. At other periods of the cycle, the opacity should be limited to 40% pursuant to 326 IAC 5-1-2(1).

Upon further review, the OAM has decided to make the following revisions (bolded language has been added, the language with a line through it has been deleted).

1. On the last page of the TSD, subsection (c) of the HISTORY section, the language should have been written as follows, because IDEM did not take data from the worst case *test* runs.

(c) Data was taken from the worst-case **opacity test** runs to determine the alternate opacity limits.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Permit Modification

Source Background and Description

Source Name:	ALCOA Inc. - Warrick Operations
Source Location:	Junction State Routes 61 & 66, Newburgh, Indiana
County:	Warrick
SIC Code:	3334, 3352
Operating Permit Modification:	173-11414
Operation Permit No.:	87-07-91-0113
Permit Reviewer:	Kimberly Titzer

The Office of Air Management (OAM) has reviewed a request from ALCOA Inc. - Warrick Operations relating to alternate opacity limitations for the #5 horizontal direct chill casting (HDC) complex.

History

On October 5, 1998, ALCOA Inc. - Warrick Operations submitted a request to the OAM requesting the establishment of an alternate opacity limitation for the #5 horizontal direct chill casting (HDC) complex. ALCOA Inc. - Warrick Operations has an Operation Permit No. 87-07-91-0113, issued July 11, 1990.

The Operation Permit No. 87-07-91-0113, issued July 11, 1990 outlines the opacity limitation for the #5 HDC complex as follows:

“...visible emissions (VE) from the stacks of any of the listed facilities shall be limited to 40% opacity on a six minute average basis as determined by VE readings taken in accordance with 326 IAC 5-1-4.”

Pursuant to 326 IAC 5-1-5(b), ALCOA Inc. - Warrick Operations “believes it can operate in compliance with the applicable mass emission limitation, but exceeds the limits specified in section 2 of this rule (40% opacity limitation).” Therefore, pursuant to 326 IAC 5-1-5(b), the owner or operator may submit a written petition to the commissioner requesting that an alternate opacity limitation (AOL) be established. ALCOA Inc. - Warrick Operations submitted information supporting an AOL subject to test results. The rule also requires that the AOL be submitted to the U.S.EPA as a revision to the State Implementation Plan.

The following items were used during the evaluation of the AOL request:

- (a) Particulate testing utilizing reference methods 1-5 was conducted on the East and West holding stacks for HDC complex #5. 9 sample runs were conducted on each stack, as well as on a representative melter stack. It was necessary to test a representative melter since the emissions limit for the #5 HCD complex is a total limit for all the stacks. Each test run was one hour in length with testing times coordinated to capture the entire fluxing period. Fluxing during each run lasted approximately 35 minutes while the metal was in the holding furnaces.
- (b) The IDEM, OAM Compliance Data Section reviewed the test data and found the sampling procedures used and the results to be acceptable. The Compliance Data Section also evaluated the opacity data submitted with the test report for determination of an alternate opacity limitation.

- (c) Data was taken from the worst-case test run to determine the alternate opacity limits.

Recommendation

The staff recommends to the Commissioner that the Permit Modification be approved and submitted to the U.S.EPA as a revision to the State Implementation Plan. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the stack tests and additional information submitted by the applicant.

Information for the purposes of this review was received on October 5, 1998.

Conclusion

The following change has been recommended for Operation Permit No. 87-07-91-0113 as follows:

- (a) ~~That pursuant to 326 IAC 5-1-2(a)(1) visible emissions (VE) from the stacks of any of the listed facilities shall be limited to 40% opacity on a 6-minute average basis as determined by VE readings taken in accordance with 326 IAC 5-1-4.~~

Pursuant to 326 IAC 5-1-5(b):

#5 Complex (HDC)

The alternate opacity limit (AOL) applies to the exhaust stacks from the East and West Holding furnaces. This AOL shall take the following form:

Three (3) six (6)-minute average opacity readings not to exceed 80% opacity, one (1) six (6)-minute average opacity reading not to exceed 75% opacity, one (1) six (6)-minute average opacity reading not to exceed 65% opacity, and one (1) six (6)-minute opacity reading not to exceed 55% opacity. At other periods of the cycle, the opacity should be limited to 40% pursuant to 326 IAC 5-1-2(1).